

### Remarks

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

Claims 27-33 are currently added. Claims 27, 28, 29, 32 and 33 are supported by at least Figure 4. Further, claims 30 and 31 are supported by at least page 5, lines 19-21 of the specification. No new matter is added.

Claims 1 and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Stoklosa (US 4,920,019). Claims 7-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Stoklosa in view of Hope (US 5,422,200).

The above-mentioned rejections are respectfully traversed for the following reasons.

Claim 1 is patentable over Stoklosa, since claim 1 recites a battery unit having, in part, a plurality of battery cells each having a pair of lead plates and a holding plate on which the plurality of battery cells are attached. In the Office Action, it is admitted that Stoklosa fails to disclose battery cells attached to a holding plate. (See O.A. page 7, lines 9 and 10). However, it is then stated that “it would have been obvious to one skilled in the art at the time the invention was made to attach the battery cells to the holding plate structure of Stoklosa et al [sic] as it has been held that making elements or structures either integral, separable, adjustable, or even rearranging of parts is merely a matter of obvious engineering choice, that is to say, having several parts rigidly secured together as a single unit is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed battery unit is significant.” MPEP §2144.04(B) is then referenced as supporting this contention.

In MPEP §2144.04(B), the Examiner’s attention is brought to the Federal Circuit case of Schenck v. Nortron Corp., 713 F.2d 782, 218 USPQ 689 (Fed. Cir. 1983). In this case, the Federal Circuit found that a claimed vibratory testing machine having a number of structures that were combined to form a “single integral and gaplessly continuous piece” was not obvious in light of the prior art that had the structures bolted together. As described in the MPEP, the Federal Circuit reasoned that “the claims were patentable because the prior art perceived a need for mechanisms to dampen resonance, whereas the

inventor eliminated the need for dampening via the one-piece gapless support structure, showing insight that was contrary to the understandings and expectations of the art.” Therefore, based on this holding, it is apparent that not all devices in which elements or structures are integrated are deemed to be obvious.

As discussed in the following, it is apparent that the present invention claimed in claim 1 (hereinafter, “claimed invention”) provides unexpected benefits over the battery pack assembly of Stoklosa, and therefore is not obvious in view of Stoklosa. According to the claimed invention, a plurality of battery cells is attached to a holding plate to be integrated. Consequently, the possibility that a battery unit of the plurality of battery cells will cause a short circuit is significantly reduced.

Referring to Figure 4 for the sake of example, when the battery cells 9 illustrated therein are not attached to the battery holding plate 8, leads of the unattached batteries may be folded while the portion of the leads connected to the common circuit board 11 serve as a fulcrum. When the leads of the unattached batteries are repeatedly folded and unfolded, one of the leads may break. If one of the leads is broken, the unattached battery cell with the broken lead may move and the other lead, still connected to the common circuit board 11, will then serve as a fulcrum. As a result of this movement, the broken lead may then contact with the leads of the other battery cells or the common circuit board 11 and create the possibility that the battery cells 9 may be short-circuited.

In the battery pack assembly of Stoklosa, battery cells are fixed to a holding plate, but not attached thereto. Accordingly, the battery pack assembly of Stoklosa has the aforesaid possibility of short circuiting.

On the other hand, in the battery unit of the present invention, the batteries are attached to the holding plate. Therefore, even if one of the leads should be broken, the battery cells will not move in the claimed invention while the other lead connected to the common circuit board 11 serves as a fulcrum. Consequently, the battery cells can be prevented from being short-circuited.

Stoklosa cannot achieve the above-described effect. Moreover, the claimed invention greatly reduces the possibility of the problem of “the risk of short-circuit” that is particular to battery cells storing electric energy. In this respect, the claimed invention

is unobvious from Stoklosa. As a result, Stoklosa fails to disclose or suggest the present invention as recited in claim 1.

In section 5 of the Office Action, Hope is relied upon as disclosing thin battery cells. However, Hope fails to disclose or suggest the above-discussed feature of claim 1.

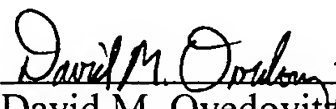
As for claim 27, it is patentable over Stoklosa and Hope for the same reasons as set forth above in support of claim 1. That is, claim 27, like claim 1, recites a battery unit having, in part, a holding plate to which cases of a plurality of battery cells are attached, which feature is not disclosed or suggested by Stoklosa or Hope.

Because of the above mentioned distinctions, it is believed clear that claims 1, 7, 8, 12 and 27-33 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to modify or to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1, 7, 8, 12 and 27-33. Therefore, it is submitted that claims 1, 7, 8, 12 and 27-33 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

Minoru AOYAMA

By:   
David M. Ovedovitz  
Registration No. 45336  
Attorney for Applicant

DMO/jmj  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
July 6, 2004